

**Final Statement of Reasons
Operator Certification Rules
Title 22, California Code of Regulations**

All suppliers of domestic water to the public are subject to regulations adopted by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act (42 U.S.C. 300f et seq.) as well as by the California Department of Health Services (Department) under the California Safe Drinking Water Act (sections 116270-116751, Health and Safety Code [H&S Code]).

In 1999, the EPA published guidance (Federal Register 64 (24), 5916-5921, February 5, 1999), as required by the Safe Drinking Water Act Amendments of 1996, that established minimum requirements for state operator certification programs. Additionally, in 1999 the State legislature amended the H&S Code to conform to the federal statute and guidelines (Chapter 755, 1999 statutes). These regulations have been adopted pursuant to that statute (H&S Code 106875 et. seq.).

The Department's previous operator certification program (Title 17, Chapter 5, sections 7104 through 7134 of the California Code of Regulations (CCR)) was initially adopted in 1973 and had not been substantively changed since that time. It was out-dated and did not adequately address the requirements of modern treatment facilities. The operator certification program presented in sections 7104 through 7134 of the CCR did not meet the new requirements specified in the federal guidelines or the H&S Code.

Pursuant to federal guideline requirements and H&S Code sections 106875 et. seq., the Department has adopted the following regulations that expand the certification program to distribution system operators and ensure that all treatment facilities and distribution systems are classified consistent with federal guidance. The new operator certification regulations have been added to Title 22 of the CCR to maintain consistency with other drinking water regulations.

The Department has repealed Title 17, Division 1, Chapter 5, Group 2, Operator Certification Program, in its entirety. The Department has amended Title 22, Division 4 of the California Code of Regulations by adopting, pursuant to federal requirements, Chapter 13, Operator Certification, and amending Chapter 15, Domestic Water Quality and Monitoring. The following summarizes the amendments:

CHAPTER 13, Operator Certification

- **ARTICLE 1, Definitions**

Adopted sections 63750.10 through 63750.85 with the intent being to define and clarify terminology that is used throughout this chapter.

- **ARTICLE 2, Operator Certification Grades**

- Section 63765. Water Treatment Facility Staff Certification Requirements.
- Section 63770. Distribution System Staff Certification Requirements.

- **ARTICLE 3, Operator Examination Criteria and Applications**
 - Section 63775. Eligibility Criteria for Taking a Water Treatment Operator Examination.
 - Section 63780. Eligibility Criteria for Taking a Distribution Operator Examination.
 - Section 63785. Examination Application Content and Submittal.
 - Section 63790. Examination Scheduling and Application Processing.
 - Section 63795. Examination Application Resubmittals and Reexaminations.
- **ARTICLE 4, Operator Certification Criteria and Applications**
 - Section 63800. Eligibility Criteria for Water Treatment Operator Certification.
 - Section 63805. Eligibility Criteria for Distribution Operator Certification.
 - Section 63810. Interim Certification of Distribution Operators.
 - Section 63815. CNAWWA Distribution Operator Certification.
 - Section 63820. Temporary Distribution Operator Certification.
 - Section 63825. Restricted Operator Certification.
 - Section 63830. Certification Application Content and Submittal.
 - Section 63835. Certification and Renewal Application Processing.
- **ARTICLE 5, Certification Renewals, Delinquent Renewals and Fees**
 - Section 63840. Certification Renewals.
 - Section 63845. Reinstatement.
 - Section 63850. Fees.

CHAPTER 15, Domestic Water Quality and Monitoring

- **ARTICLE 2. Definitions and General Requirements**
 - Section 64413.1 Classification of Water Treatment Facilities.
 - Section 64413.3 Classification of Distribution Systems.
 - Section 64413.5 Treatment Facility Staff Certification Requirements.
 - Section 64413.7 Distribution System Staff Certification Requirements.

The net effect is that:

- Water treatment and distribution facilities are classified in a manner consistent with EPA guidelines.
- Water treatment and distribution facilities are operated and maintained by operators who are certified at the appropriate level, assuring the protection of public health and safety.
- Certified operators will receive on-going training to ensure that their knowledge of treatment, operations, and public health issues remains current.

Adoption of these regulations satisfies the federal guideline requirements and the H&S Code requirements.

The following paragraphs describe and explain the regulatory amendments. All references to FR shall be to Federal Register 64 (24), 5916-5921, February 5, 1999, unless otherwise stated.

REPEALED - Title 17, Division 1, Chapter 5, Group 2. Operator Certification Program:

This group specifies the Department's former operator certification program. These regulations were initially adopted in 1973 and have not been substantively changed since that time. They are out-dated and do not adequately address the requirements of modern treatment facilities, and do not include distribution systems. These regulations do not comply with the recently adopted federal guidelines addressing operator certification programs. These regulations have been repealed because they are obsolete.

The Department's operator certification program is now fully contained in Title 22, Chapter 13 of the CCR.

The following summarizes the portions of Title 17, Division 1, Chapter 5, Group 2 that have been **REPEALED**:

- **ARTICLE 1. General**
- **ARTICLE 2. Responsibility of Water Supplier**
 - Section 7104. Operator in Training
 - Section 7105. Remote Area
- **ARTICLE 3. Responsibility of Operators**
 - Section 7107. Grade of Operator
- **ARTICLE 4. Issuance of Certificates**
 - Section 7109. Requirements for Certification
 - Section 7110. Application
 - Section 7110.1. Processing an Application for Certification
 - Section 7110.2. Processing Time
 - Section 7112. Notification to Applicants
 - Section 7114. Minimum Qualifications for Examination
- **ARTICLE 5. Types of Certification**
 - Section 7116. Regular Certification
 - Section 7117. Temporary Certification
 - Section 7118. Limited Certification
- **ARTICLE 6. Certification, Issuance, Renewal, Suspension and Revocation**
 - Section 7120. Issuance and Renewal
 - Section 7121. Suspension for Failure to Renew Certificate
 - Section 7122. Revocation of Certificate
 - Section 7123. Posting of Certificate
- **ARTICLE 7. Examination**
 - Section 7127. Examination Procedure

- **ARTICLE 8. Fees**
 - Section 7130. Application Fee
 - Section 7131. Renewal Fee
 - Section 7132. Reexamination Fee
 - Section 7133. Penalty Fee
 - Section 7134. Duplicate Certificate Fee

The following summarizes the newly adopted operator certification chapter.

ADOPTED - Title 22, Division 4, Environmental Health, Chapter 13, Operator Certification

Chapter 13, Operator Certification, consists of five articles that replace the Operator Certification Program that was previously specified in Title 17. This chapter is placed in Title 22 because that is where most of the drinking water regulations are located.

These operator certification regulations were developed in large part to comply with the federal operator certification guidelines specified in the FR. The regulations expand the operator certification requirements to distribution systems and require all operators to complete continuing education courses in order to renew their certifications.

To assist in the development of these regulations, the Department formed a Technical Advisory Committee (TAC) that met a number of times over the two years that the regulation was being developed. The TAC provided input throughout the regulatory development process and reviewed and approved the proposed language. The TAC provided expertise in topics associated with treatment facility and distribution system complexity issues, operator certification requirements, and continuing education criteria.

The following organizations were represented on the TAC: Association of California Water Agencies, Bay Area Water Superintendents, California-Nevada Section of the American Water Works Association, California Rural Water Association, California Water Association, Rural Community Assistance Corporation, Sacramento State University, San Diego County Water Authority, Southern California Water Company, Stationary Engineers Local Number 39, and EPA.

On July 28, 2000, the TAC met to discuss the proposed regulatory language. After reviewing the language, 28 specific statements were presented to the TAC for discussion. The industry representatives were asked to vote either affirmatively or non-affirmatively on each of the 28 statements. The sign-in sheet and a list of the 28 statements are provided in Appendix A of this document. For each statement, the result of the vote is also presented. The results of the voting indicate that the TAC unanimously approves of the Department's proposed language (refer to Statement #1 of Appendix A).

ARTICLE 1. Definitions

The purpose of this article is to define terms that are used in the regulation. Each definition is presented in a separate section, as follows:

Section 63750.10. Accredited Academic Institution.

This term is a common term in academia and it is usually used as a reference to academic institutions that have been accredited by a nationally recognized agency. The Department's definition limits the term to those institutions that have been accredited by either the Western Association of Schools and Colleges or an accrediting organization recognized by the Council of Post Secondary Education. These organizations have defined procedures for evaluating programs offered by academic institutions and granting accreditation to academic institutions. Such procedures and accreditations ensure the quality of courses offered by such institutions.

Section 63750.15. Certificate.

The term certificate is generic, however, in these regulations when the Department uses the term certificate it has a very specific meaning. In this regulation, the term certificate refers specifically to an operator certificate issued by the Department.

Section 63750.20. Certified Distribution Operator.

This term is defined to distinguish operators holding a valid certificate issued pursuant to this chapter from those distribution operators that are not certified. Not all distribution operators must be certified.

Section 63750.25. Chief Operator.

This term is defined to identify the operator ultimately responsible for the on site operation of the treatment facility or distribution system. This is done because there is a minimum certification grade required for the position depending on the classification of the treatment facility or distribution system.

Section 63750.30. Comprehensive Operator Training Program.

This term identifies the operator training that may be used as a substitute for the specialized experience required for the Grade T3 and T4 in Section 63756.5.

Section 63750.35. Contact Hour.

This term is defined to be a measurable standard unit of training. The duration is used to accommodate the majority of courses that fall into this range or are a small multiple of it.

Section 63750.40. Continuing Education Course.

This term is defined to limit the scope of training that may be used to satisfy the continuing education requirement. The subject matter of the course must be relevant to the activity for which the student is certified. Specialized training is defined in this chapter and must meet higher standards than continuing education courses.

Section 63750.45. Distribution Operator.

This term is defined to identify all operators of distribution systems. These operators may or may not hold a certificate. Only distribution operators identified in section 63770 need to be certified.

Section 63750.50. Distribution System.

This term is defined to identify those facilities that are operated by distribution operators.

Disinfection is water treatment. Disinfection to maintain a disinfectant residual in the distribution piping to keep it clean, rather than to meet a treatment standard or maximum contaminant level, is commonly performed as a distribution system operation. It is intended to allow these disinfection facilities to be operated by distribution operators.

A public water system distribution system may not be a single interconnected system. It may include several separate systems. The defined term includes all distribution facilities of the public water system.

Section 63750.55. GED.

General equivalency diploma is a term commonly used to identify a standard examination that, when passed, is accepted as equivalent to a high school diploma. The acronym is defined to facilitate repeated use in the regulation.

Section 63750.60. Interim Distribution Operator Certificate.

This term is used to identify operators certified pursuant to the grandparenting provisions of the Health and Safety Code. A new term was created to help avoid the confusion that may occur from preconceived ideas of what “grandparenting” means.

Section 63750.65. Operator Experience.

This definition limits the range of activities that are acceptable for meeting the experience requirements for certification to those that help prepare an operator for higher levels of certification. This restriction allows the Department to reject experience that is not relevant to water quality or quantity or does not directly involve operation of the water system.

Section 63750.70. Shift Operator.

This term is defined to identify the person subordinate to the chief operator that is directly responsible for the operation of the treatment facility for a period of the day, and possibly when the chief operator is off duty. This is done because there is a minimum certification grade required for the position depending on the classification of the treatment facility.

Section 63750.75. Specialized Training.

This definition limits the training that will be accepted as qualifying for admission to an examination to that which is relevant to the subject of the examination and area of certification. College level courses (usually community college) are used in the current and proposed operator certification program. Requiring college level courses assures

sufficient quality of instruction and course content. Courses are to provide a minimum of 36 contact hours of instruction, which is consistent with the Department's current program as well as other industry programs. This number of contact hours is believed to be the minimum necessary to assure adequate coverage of necessary topics. To ensure the quality of the courses, the Department accepts only courses offered by accredited academic institutions or an organization that has either been accredited by the International Association of Continuing Education Training (IACET) or an authorized provider of IACET. Since many operators who are currently certified have taken courses that the Department had accepted under the previous operator certification program, and that may no longer be acceptable under the new program because they may not have been offered by accredited academic institutions, the Department will allow these operators to continue to count those courses toward the certification requirements.

Section 63750.85. Water treatment facility.

This term is used to identify all the treatment used by a public water system to change the quality of the water. It is equal in scope to the term "treatment facility" used in Federal guidance and it is used in a way that assures compliance with the guidance.

The term "or otherwise offered to the public for domestic use by a public water system" is included because public water systems may make their water available to their customers in bottles under some circumstances.

Facilities consisting of only disinfection for which no *Giardia* or virus reduction is required are considered to be a part of the distribution system and therefore are not included as a treatment facility.

ARTICLE 2. Operator Certification Grades

The purpose of this article is to establish specific certification grade requirements for treatment facility and distribution system operators, based on facility and distribution system classifications.

The intent is to ensure that, by specifying appropriate certification levels for operators, treatment facilities and distribution systems are operated properly and that customers are provided an adequate supply of safe, potable drinking water.

Section 63765. Water Treatment Facility Staff Certification Requirements.

This section specifies the types and grades of operators that must be assigned to each treatment facility. The TAC assisted the Department in the development of this section and agrees with the requirements specified for chief and shift operators (refer to Statement #6 of Appendix A).

Subsection (a) specifies the minimum certification grades for chief and shift operators. Table 63765-A specifies that the chief operator must hold a treatment operator certificate of a grade at least equivalent to the class of water treatment facility operated. This

requirement ensures that the individual who has overall responsibility for the day-to-day, hands-on, operation of the water treatment facility has the necessary knowledge, education, and experience to ensure that the facility is operated in a safe and appropriate manner without jeopardizing public health or safety.

Table 63765-A also specifies that the shift operator in Class T2, T3, and T4 facilities must hold a treatment operator certificate no more than one grade lower than the class of treatment facility operated. This requirement ensures that for each operating shift, an appropriately trained and certified operator is responsible for ensuring that the facility is operated in a safe and appropriate manner without jeopardizing public health or safety.

Table 63765-A also specifies that the shift operator in a Class T5 facility must hold at least a valid T3 certificate. A T3 operator is qualified to be a shift operator at the largest of treatment facilities, and there is a very limited availability of T4 and T5 operators. For these two reasons, the Department and the TAC agreed that it was appropriate to specify that shift operators in T5 facilities hold at least a T3 certificate (refer to Statement #7 of Appendix A).

Subsection (b) requires that treatment operators not designated as chief or shift operators must be certified but may hold certificates of any grade. This is consistent with EPA guidelines published in the FR.

Subsection (c) allows existing shift and chief operators to continue working in that capacity until January 1, 2003, regardless of the certification requirements that are presented in these regulations, if the conditions in paragraphs (1) and (2) are met. The intent is to allow these operators to continue working for a limited time in their current capacity even if, as a result of promulgation of this regulation, the facility is classified in such a way that would require a shift or chief operator to hold a higher grade of operator certification. The intent of paragraphs (1) and (2) is to limit the applicability of this subsection to operators who were in compliance with the certification requirements that were in place prior to the adoption of these regulations and who have been employed at the same the treatment facility since the adoption of these regulations. Additionally, it is the intent of paragraph (2) that if the treatment facility undergoes a modification that results in a change in classification, the operator must comply with the new certification requirements pursuant to (a).

Subsection (d) clarifies the status of operators who hold certificates that were issued under the previous regulations. The intent is that these operators will simply roll into the new certification process at the same grade they are currently certified, with the only change being the symbol used to designate the grade. The previous regulations utilized Roman numerals while these regulations utilize a "T" prefix, indicating treatment certification, followed by a number, indicating certificate grade.

Section 63770. Distribution System Staff Certification Requirements.

This section specifies the types and grades of operators that must be assigned to each distribution system.

Subsection (a) specifies the minimum certification grades for chief and shift operators. Table 63770-A specifies that the chief operator must hold a distribution operator certificate of a grade at least equivalent to the class of distribution system operated. This requirement ensures that the individual who has overall responsibility for the day-to-day, hands-on, operation of the distribution system has the necessary knowledge, education, and experience to ensure that the system is operated in a safe and appropriate manner without jeopardizing public health or safety.

Table 63770-A also specifies that the shift operator in Class D2, D3, and D4 facilities must hold a distribution operator certificate no more than one grade lower than the class of distribution system operated. This requirement ensures that for each operating shift, an appropriately trained and certified operator is responsible for ensuring that the system is operated in a safe and appropriate manner without jeopardizing public health or safety.

Table 63770-A also specifies that the shift operator in a Class D5 distribution system must hold at least a valid D3 certificate. A D3 operator is qualified to be a shift operator at the largest of distribution systems, and there is expected to be a very limited availability of D4 and D5 operators. For these two reasons, the Department and the TAC agreed that it was appropriate to specify that shift operators in D5 systems hold at least a D3 certificate (refer to Statement #8 of Appendix A).

Subsection (b) specifies decisions that must be made by certified distribution operators. Operators that make decisions addressing any of the operational activities identified in paragraphs (1) through (6) must be certified as a distribution operator. The operational activities identified in (1) through (6) are activities that may affect the quality or quantity of water being served, and therefore any individual making decisions regarding those activities must be certified. The knowledge and skills necessary to make decisions addressing the activities identified in (1) through (6) are unique to distribution operations and are not covered in treatment facility operator examinations, therefore those decisions must be made by certified distribution operators. These requirements help to ensure that distribution systems are operated in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (c) specifies decisions that must be made either by certified distribution operators or appropriately trained and certified treatment operators. Operators that make decisions addressing any of the operational activities identified in paragraphs (1) or (2) must be certified as either a distribution operator or a treatment operator. The operational activities identified in (1) and (2) are activities that may affect the quality or quantity of water being served, and therefore any individual making decisions regarding those activities must be certified. The knowledge and skills necessary to make decisions addressing the activities identified in (1) and (2) are partially covered in treatment facility operator examinations, therefore those activities may be performed by a certified treatment facility operator if the operator has received training covering those processes. These requirements help to ensure that distribution systems are operated in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (d) specifies decisions that must be made either by certified distribution operators or certified treatment operators. Operators that make decisions addressing any of the operational activities identified in paragraphs (1) or (2) must be certified as either a distribution operator or a treatment operator. The operational activities identified in (1) and (2) are activities that may affect the quality or quantity of water being served, and therefore any individual making decisions regarding those activities must be certified. The knowledge and skills necessary to make decisions addressing the activities identified in (1) and (2) are common to both distribution and treatment operations and are covered in treatment facility operator examinations, therefore those activities may be performed by a certified treatment facility operator. These requirements help to ensure that distribution systems are operated in a safe and appropriate manner without jeopardizing public health or safety.

ARTICLE 3. Operator Examination Criteria and Applications

The purpose of this article is to specify the education requirements necessary for taking an operator exam. It also specifies the information that must be included in the application for examination and provides instructions for the submittal of applications.

The intent is to ensure that only qualified applicants that have the necessary education, skills, and experience are able to take the examinations. The TAC assisted the Department in developing these criteria and the TAC believes that the criteria are appropriate (refer to Statement #9 of Appendix A).

Section 63775. Eligibility Criteria for Taking a Water Treatment Operator Examination.

This section specifies the eligibility criteria for taking each of the five treatment operator examinations. The intent is to limit examination admittance to those individuals who already meet the education requirements. The education requirements for each grade level were developed in cooperation with the TAC and are in compliance with the federal guidelines.

Subsection (a) disqualifies applicants who have had an operator certificate revoked, and not reinstated, for any reason other than the failure to pay renewal fees or to obtain the necessary continuing education requirements. The intent is to prohibit operators who have had their certificates revoked from reapplying for certification, unless the revocation was the result of a failure to meet the certification renewal requirements or the basis for the revocation has been resolved and the certificate has been reinstated.

Subsection (b) specifies the eligibility criteria for taking the T1 operator exam. The only criteria are possession of a high school diploma or GED, which may be substituted by relevant experience and/or training, as specified in paragraphs (1) and (2). The intent is to limit entry into the T1 examination to those applicants who have the math and reading

skills required to operate or supervise the most basic of drinking water treatment facilities in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (c) specifies the eligibility criteria for taking the T2 operator exam. The criteria are specified in paragraphs (1) and (2). The criteria in paragraph (1) are identical to those specified in subsection (a) for T1 applicants. The additional criteria in paragraph (2) ensure that the applicant has at least a fundamental understanding of drinking water treatment concepts. The intent is to limit entry into the T2 examination to those applicants that have not only the basic math and reading skills, but also an introductory understanding of drinking water treatment processes and concepts.

Subsection (d) specifies the eligibility criteria for taking the T3 operator exam. The criteria are specified in paragraphs (1) and (2). The intent is to limit entry into the T3 examination to those applicants that have not only the basic math and reading skills and introductory understanding of drinking water treatment, but also have additional specialized training in drinking water treatment.

Subsection (e) specifies the eligibility criteria for taking the T4 operator exam. The criteria are specified in paragraphs (1) and (2). The intent is to limit entry into the T4 examination to those applicants that already have a T3 operator certificate and have in-depth college-level training in drinking water treatment and/or water treatment.

Subsection (f) specifies the eligibility criteria for taking the T5 operator exam. The criteria are specified in paragraphs (1) and (2). The intent is to limit entry into the T5 examination to those applicants that already have a T4 operator certificate and have extensive college-level training in drinking water treatment and/or water treatment.

Subsection (g) allows applicants that apply for both treatment operator and distribution operator certification to utilize the same college-level training for both applications if it is applicable. The intent is to not require twice the training for an applicant that is applying for both certifications.

Section 63780. Eligibility Criteria for Taking a Distribution Operator Examination.

This section specifies the eligibility criteria for taking each of the five distribution operator examinations. The intent is to limit examination admittance to those individuals who already meet the education requirements. The education requirements for each grade level were developed in cooperation with the TAC and are in compliance with the federal guidelines.

Subsection (a) disqualifies applicants who have had an operator certificate revoked, and not reinstated, for any reason other than the failure to pay renewal fees or to obtain the necessary continuing education requirements. The intent is to prohibit operators who have had their certificates revoked from reapplying for certification, unless the revocation was the result of a failure to meet the certification renewal requirements or the basis for the revocation has been resolved and the certificate has been reinstated.

Subsection (b) specifies the eligibility criteria for taking the D1 operator exam. The only criteria are possession of a high school diploma or GED, which may be substituted by relevant experience and/or training, as specified in paragraphs (1) and (2). The intent is to limit entry into the D1 examination to those applicants who have the math and reading skills required to operate or supervise the most basic of water distribution systems in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (c) specifies the eligibility criteria for taking the D2 operator exam. The criteria are specified in paragraphs (1) and (2). The criteria in paragraph (1) are identical to those specified in subsection (a) for D1 applicants. The additional criteria in paragraph (2) ensure that the applicant has at least a fundamental understanding of water supply principles. The intent is to limit entry into the D2 examination to those applicants that have not only the basic math and reading skills, but also an introductory understanding of drinking water supply principles.

Subsection (d) specifies the eligibility criteria for taking the D3 operator exam. The criteria are specified in paragraphs (1) and (2). The intent is to limit entry into the D3 examination to those applicants that already have either a D2 certificate or an interim D3 certificate or above and also have additional specialized training in drinking water supply principles.

Subsection (e) specifies the eligibility criteria for taking the D4 operator exam. The criteria are specified in paragraphs (1) and (2). The intent is to limit entry into the D4 examination to those applicants that already have either a D3 certificate or an interim D4 certificate or above and have in-depth college-level training in drinking water treatment and supply.

Subsection (f) specifies the eligibility criteria for taking the D5 operator exam. The criteria are specified in paragraphs (1) and (2). The intent is to limit entry into the D5 examination to those applicants that already have either a D4 certificate or an interim D5 certificate and have extensive college-level training in drinking water treatment and supply.

Subsection (g) allows applicants that apply for both treatment operator and distribution operator certification to utilize the same college-level training for both applications if it is applicable. The intent is to not require twice the training for an applicant that is applying for both certifications.

Section 63785. Examination Application Content and Submittal.

The purpose of this section is to specify the content of a complete application for examination.

Subsection (a) specifies the information that is required to make an application complete. In order for the Department to evaluate whether or not the applicant is eligible to take the examination, the Department must have all of the items listed in paragraphs (1) through (6).

The information specified in paragraph (1) is basic information that is required in order for the Department to maintain a unique file for the applicant. The information specified in (2) allows the Department to prioritize application review based on the applicants desired examination date and also allows the Department to make appropriate arrangements for examination materials and proctoring. Paragraph (3) requires that the examination fee be included with the application. If the examination fee is not included, the application is incomplete and will not be reviewed. The information specified in paragraphs (4), (5), and (6) is necessary to verify that the applicant meets the requirements for entry into the exam.

Section 63790. Examination Scheduling and Application Processing.

The intent of this section is to specify important deadlines for the processing of exam applications and requirements for entry into the exam.

Subsection (a) specifies the deadline for application to an examination. It is necessary for the Department to set a final filing date for the receipt of applications to allow the Department sufficient time to review applications and make arrangements for exam materials and proctoring.

Subsection (b) provides applicants with a time frame within which to expect a notice from the Department as to the status of their application. It also specifies that the notice will either indicate that the applicant meets the criteria to take the exam and will specify the date of the exam, or it will indicate that the applicant does not meet the requirements and it will specify the reasons for disqualification. The intent of the subsection is to clarify the process for applicants and inform them as to when they should expect a response from the Department.

Subsection (c) specifies the form of identification that must be presented to gain entry into the exam. This is necessary to protect against fraud and ensure that the applicant is the person actually taking the exam.

Section 63795. Examination Application Resubmittals and Reexaminations.

The intent of this section is to provide applicants with instructions for resubmitting disqualified applications and for reapplying for examinations.

Subsection (a) specifies that applicants who have submitted applications that were disqualified may resubmit amended applications within 12 months of the original submittal date for reconsideration without paying an additional fee. The intent of this section is to provide applicants with a second or possibly third chance to obtain the prerequisite education and/or submit a complete application without paying an additional fee. Within this 12-month time frame the second or third review of the application by the Department should not be administratively burdensome. However, application re-processing that goes beyond the 12-month time frame does become burdensome and will require payment of an additional examination fee.

Subsection (b) specifies the requirements for applying to re-take an exam. The items specified in paragraph (1) are necessary to ensure that the request is paired with the correct original application. Paragraph (2) specifies that the reexamination fee must be submitted with the application. The Department will not make arrangements for an applicant to re-take an exam unless the appropriate reexamination fee is included with the application.

ARTICLE 4. Operator Certification Criteria and Applications

Section 63800. Eligibility Criteria for Water Treatment Operator Certification.

This section specifies the eligibility criteria for obtaining operator certification at each of the five grade levels. The intent is to limit certification to those individuals who have the education, experience, and demonstrated knowledge necessary for each specific grade. The eligibility criteria for certification at each grade level were developed in cooperation with the TAC and are in compliance with the federal guidelines. The Department and the TAC believe that the education and experience requirements specified for each operator grade are appropriate and necessary to ensure that water treatment facilities are operated in a safe and appropriate manner without jeopardizing public health or safety (refer to Statement #10 of Appendix A).

Subsection (a) specifies the eligibility criteria for obtaining a T1 operator certificate. The criterion is successful completion of the T1 operator examination within the three years prior to applying for certification. The intent is to limit T1 certification to those applicants who have recently (within three years) demonstrated the knowledge necessary to operate the most basic of drinking water treatment facilities in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (b) specifies the eligibility criteria for obtaining a T2 operator certificate. The criterion is successful completion of either the T2 or T3 operator examination within the three years prior to applying for certification. The intent is to limit T2 certification to those applicants who have recently (within three years) demonstrated the knowledge necessary to operate a basic drinking water treatment facility in a safe and appropriate manner without jeopardizing public health or safety. Since there are no experience requirements for the T2 operator certificate, and the T3 exam includes the same material, although in greater depth, as the T2 exam, successful T3 examinees are eligible for T2 certification.

Subsection (c) specifies the eligibility criteria for obtaining a T3 operator certificate. The criteria are successful completion of the T3 operator exam within the three years prior to applying for certification and obtaining the experience specified in paragraphs (1) and (2). The intent is to limit T3 certification to those applicants who have not only demonstrated their knowledge of drinking water treatment processes and concepts, but have also demonstrated their abilities through actual hands-on operating experience. Operators at the T3 level may be placed in positions with extensive responsibilities at large drinking water treatment facilities, and the Department and the TAC agree that at this level it is important that the applicant have hands-on operating experience. The required experience may be obtained prior to taking the examination or within 3 years of successfully completing the exam. The intent is to allow applicants to take the exam before obtaining all the required experience. This allows the applicant to notify his/her employer or potential employer that they have demonstrated their knowledge and that upon meeting the experience requirements, they can be certified at the T3 level. The previous regulations required the applicant to have the required experience before taking the exam, and the TAC noted that in the past some utilities have provided years of

training and experience through an intern program only to discover that the operator cannot pass the exam. The Department and the TAC believe that allowing admission to the exam prior to obtaining the experience and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators (refer to Statement #11 of Appendix A).

Subsection (d) specifies the eligibility criteria for obtaining a T4 operator certificate. The criteria are successful completion of the T4 operator exam within the three years prior to applying for certification and obtaining the experience specified in paragraphs (1) and (2). Before becoming certified at the T4 level an operator must have at least one year of experience as a T3 operator in a position of primary responsibility for the overall operation of a T3 treatment facility or higher. The intent is to limit T4 certification to those applicants who have not only demonstrated their knowledge of advanced drinking water treatment processes and concepts, but have also demonstrated their abilities through actual hands-on operating experience as either a shift operator or chief operator at a medium to large water treatment facility. Operators at the shift operator or chief operator level have had primary responsibility for the overall operation of a treatment facility, and the Department and the TAC agreed that this type of experience should be a prerequisite of T4 operator certification. The required experience may be obtained prior to taking the examination or within 3 years of successfully completing the exam. The intent is to allow applicants to take the exam before obtaining all the required experience. This allows the applicant to notify his/her employer or potential employer that they have demonstrated their knowledge and that upon meeting the experience requirements, they can be certified at the T4 level. The previous regulations required the applicant to have the required experience before taking the exam, and the TAC noted that in the past some utilities have provided years of training and experience through an intern program only to discover that the operator cannot pass the exam. The Department and the TAC believe that allowing admission to the exam prior to obtaining the experience and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators (refer to Statement #11 of Appendix A).

Subsection (e) specifies the eligibility criteria for obtaining a T5 operator certificate. The criteria are successful completion of the T5 operator exam within the three years prior to applying for certification and obtaining the experience specified in paragraphs (1) and (2). Before becoming certified at the T5 level an operator must have at least two years of experience as a T4 operator in a position of primary responsibility for the overall operation of a T4 treatment facility or higher. The intent is to limit T5 certification to those applicants who have not only demonstrated their knowledge of advanced drinking water treatment processes and concepts, but have also demonstrated their abilities through extensive hands-on operating experience as either a shift operator or chief operator at a large water treatment facility. Operators at the shift operator or chief operator level have had primary responsibility for the overall operation of a treatment facility, and the Department and the TAC agreed that this type of experience should be a prerequisite of T5 operator certification. The required experience may be obtained prior to taking the examination or within 3 years of successfully completing the exam. The

intent is to allow applicants to take the exam before obtaining all the required experience. This allows the applicant to notify his/her employer or potential employer that they have demonstrated their knowledge and that upon meeting the experience requirements, they can be certified at the T5 level. The previous regulations required the applicant to have the required experience before taking the exam, and the TAC noted that in the past some utilities have provided years of training and experience through an intern program only to discover that the operator cannot pass the exam. The Department and the TAC believe that allowing admission to the exam prior to obtaining the experience and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators (refer to Statement #11 of Appendix A).

Subsection (f) allows the substitution of a relevant college degree for some of the experience required for T3, T4, or T5 certification. Only the general operator experience may be substituted, not experience required at specific facility classifications or at specific certification grades. The intent is to recognize that an individual with a relevant college degree has additional education that will better prepare them to understand and operate a drinking water treatment facility, and that such education is equivalent to general facility operator experience. However, it is the opinion of both the Department and the TAC that all applicants at the T3, T4, and T5 levels must have some actual facility operating experience, and that the experience must be of a certain quality, as specified in subsections (c)(1), (d)(1), and (e)(1). Therefore, the experience specified in these sections cannot be substituted with education. The Department and the TAC agree that these substitutions and the quantity of time specified for substitution are appropriate (refer to Statement #12 of Appendix A).

Subsection (g) allows the substitution, on a day-for-day basis, of time spent conducting water quality related projects or research for the general experience required for T3 certification. The intent of this subsection is to recognize that an individual who has experience conducting studies that are related to water quality has gained practical experience that will better prepare them to understand and operate a drinking water treatment facility, and that such experience is equivalent to general facility operator experience. However, since the quality and quantity of this experience is difficult to determine, the Department and the TAC agree that the substitution may only be applied at the T3 application level and not at the T4 or T5 levels, where hands-on plant operator experience is mandatory (refer to Statement #13 of Appendix A).

Subsection (h) allows the use of a comprehensive operator training program to fulfill the specialized operator experience requirements for T3 and T4 certification. The substitution may only be used if the applicant has a bachelor of science or master of science degree. The intent of this subsection is to allow utilities to provide employees who have a demonstrated ability to learn complex material in a short period of time with comprehensive training, through a training program that covers the elements detailed in paragraphs (1) through (10), that will allow the employee to obtain a T3 or T4 certificate in less time than it would otherwise require. The TAC and the Department agree that this option will allow more flexibility in hiring and promoting highly qualified operators

(refer to Statement #14 of Appendix A). The TAC and the Department agree that the training program must be at least six months in duration to allow for sufficient training and experience associated with the 10 elements specified in paragraphs (1) through (10) (refer to Statement #15 of Appendix A). The TAC developed the ten essential program elements and the TAC and Department agree that operators at the T3 and T4 level must understand these elements (refer to Statement #16 of Appendix A).

Subsection (i) allows the use of experience gained as a certified wastewater treatment facility operator to substitute for up to two years of the general operator experience required for T3, T4, and T5 certification. The intent of this subsection is to recognize that an individual who has experience operating a wastewater treatment facility has gained practical experience that will better prepare them to understand and operate a drinking water treatment facility, and that such experience is equivalent, to a limited extent, to general facility operator experience. However, since the quality and quantity of this experience is difficult to determine, the Department and the TAC agree that the substitution is limited to two years and is made on a 2 for 1 basis, i.e., two months of wastewater experience equates to one month of drinking water treatment experience (refer to Statement #17 of Appendix A). This approach is consistent with the Department's current policy on wastewater experience substitutions. It is also consistent with a reciprocal arrangement with the State Water Resources Control Board and their allowance of a 2 for 1 experience substitution for wastewater treatment operators who have experience as drinking water treatment facility operators, pursuant to California Code of Regulations, Title 23, Division 3, Chapter 26, section 3684(a).

Section 63805. Eligibility Criteria for Distribution Operator Certification.

This section specifies the eligibility criteria for obtaining operator certification at each of the five grade levels. The intent is to limit certification to those individuals who have the education, experience, and demonstrated knowledge necessary for each specific grade. The eligibility criteria for certification at each grade level were developed in cooperation with the TAC and are in compliance with the federal guidelines. The Department and the TAC believe that the education and experience requirements specified for each operator grade are appropriate and necessary to ensure that water treatment facilities are operated in a safe and appropriate manner without jeopardizing public health or safety (refer to Statement #10 of Appendix A).

Subsection (a) specifies the eligibility criteria for obtaining a D1 distribution certificate. The criterion is successful completion of the D1 operator examination within the three years prior to applying for certification. The intent is to limit D1 certification to those applicants who have recently (within three years) demonstrated the knowledge necessary to operate the most basic of drinking water distribution systems in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (b) specifies the eligibility criteria for obtaining a D2 operator certificate. The criterion is successful completion of the D2 operator examination within the three years prior to applying for certification. The intent is to limit D2 certification to those applicants who have recently (within three years) demonstrated the knowledge necessary

to operate a basic drinking water distribution system in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (c) specifies the eligibility criteria for obtaining a D3 operator certificate. The criteria are successful completion of the D3 operator exam within the three years prior to applying for certification and obtaining the experience specified in paragraphs (1) and (2). The intent is to limit D3 certification to those applicants who have not only demonstrated their knowledge of drinking water distribution system operation, but have also demonstrated their abilities through actual hands-on operating experience. Operators at the D3 level may be placed in positions with extensive responsibilities at large drinking water distribution facilities, and the Department and the TAC agree that at this level it is important that the applicant have hands-on operating experience. The required experience may be obtained prior to taking the examination or within 3 years of successfully completing the exam. The intent is to allow applicants to take the exam before obtaining all the required experience. This will allow the applicant to notify his/her employer or potential employer that they have demonstrated their knowledge and that upon meeting the experience requirements, they can be certified at the D3 level. The Department and the TAC believe that allowing admission to the exam prior to obtaining the experience and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators (refer to Statement #11 of Appendix A).

Subsection (d) specifies the eligibility criteria for obtaining a D4 operator certificate. The criteria are successful completion of the D4 operator exam within the three years prior to applying for certification and obtaining the experience specified in paragraphs (1) and (2). Before becoming certified at the D4 level an operator must have at least one year of experience as a D3 operator, interim D4 operator or higher, or a temporary D4 operator of a D3 distribution system or higher. The intent is to limit D4 certification to those applicants who have not only demonstrated their knowledge of advanced drinking water distribution principles and concepts, but have also demonstrated their abilities through actual hands-on operating experience in a medium to large water distribution system. The Department and the TAC agreed that this type of experience should be a prerequisite of D4 operator certification. The required experience may be obtained prior to taking the examination or within 3 years of successfully completing the exam. The intent is to allow applicants to take the exam before obtaining all the required experience. This allows the applicant to notify his/her employer or potential employer that they have demonstrated their knowledge and that upon meeting the experience requirements, they can be certified at the D4 level. The Department and the TAC believe that allowing admission to the exam prior to obtaining the experience and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators (refer to Statement #11 of Appendix A).

Subsection (e) specifies the eligibility criteria for obtaining a D5 operator certificate. The criteria are successful completion of the D5 operator exam within the three years prior to applying for certification and obtaining the experience specified in paragraphs (1) and (2). Before becoming certified at the D5 level an operator must have at least two years of

experience as a D4 operator, interim D5 operator, or temporary D5 operator in a D4 distribution system or higher. The intent is to limit T5 certification to those applicants who have not only demonstrated their knowledge of advanced drinking water treatment processes and concepts, but have also demonstrated their abilities through extensive hands-on operating experience in a large water distribution system. The Department and the TAC agreed that this type of experience should be a prerequisite of D5 operator certification. The required experience may be obtained prior to taking the examination or within 3 years of successfully completing the exam. The intent is to allow applicants to take the exam before obtaining all the required experience. This allows the applicant to notify his/her employer or potential employer that they have demonstrated their knowledge and that upon meeting the experience requirements, they can be certified at the D5 level. The Department and the TAC believe that allowing admission to the exam prior to obtaining the experience and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators (refer to Statement #11 of Appendix A).

Subsection (f) allows the substitution of a relevant college degree for some of the experience required for D3, D4, or D5 certification. Only the general operator experience may be substituted, not experience required in specific system classifications or at specific certification grades. The intent is to recognize that an individual with a relevant college degree has additional education that will better prepare them to understand and operate a drinking water distribution system, and that such education is equivalent to general distribution operator experience. However, it is the opinion of both the Department and the TAC that all applicants at the D3, D4, and D5 levels must have some actual distribution operating experience, and that the experience must be of a certain quality, as specified in subsections (c)(1), (d)(1), and (e)(1). Therefore, the experience specified in these sections cannot be substituted with education. The Department and the TAC agree that these substitutions and the quantity of time specified for substitution are appropriate (refer to Statement #12 of Appendix A).

Subsection (g) allows the substitution, on a day-for-day basis, of time spent conducting water quality or quantity related projects or research for the general experience required for D3 certification. The intent of this subsection is to recognize that an individual who has experience conducting studies that are related to water quality or quantity has gained practical experience that will better prepare them to understand and operate a drinking water distribution system, and that such experience is equivalent to general distribution operator experience. However, since the quality and quantity of this experience is difficult to determine, the Department and the TAC agree that the substitution may only be applied at the D3 application level and not at the D4 or D5 levels, where hands-on distribution system experience is mandatory (refer to Statement #13 of Appendix A).

Section 63810. Interim Certification of Distribution Operators.

The requirement for distribution operators to be certified is a new requirement. The distribution operator certification “infrastructure” does not exist and the Department is developing distribution operator applications and exams as quickly as possible. However, it will take time before the first distribution operators receive their

certifications from the Department. During this interval, distribution systems are still required to comply with the requirements of the regulation, even though very few, or possibly none, of the operators have certifications. For this reason, the Department recognizes the first three to six years of the certification program as a “transitional” period and has incorporated three provisions into the regulation to address the problem. This section presents the interim distribution operator certification provision, the first of three provisions intended to bridge the transitional period.

Interim distribution operator certification is a grandparented certificate. Operators doing the job today can continue doing the job under an interim operator certification, without taking an exam or demonstrating experience. These certificates are valid for 3 years and may only be renewed once. If the operator wants to continue practicing as a certified distribution operator, the operator must obtain a regular distribution operator certificate within 6 years. Pursuant to section 106895 of the H&S Code, interim distribution operator certificates are system specific and cannot be transferred to other operators or other distribution systems.

Subsection (a) presents the requirements for interim distribution operator certification. The intent of this subsection is to permit distribution operators who are in positions responsible for making decisions that require distribution operator certification at the time the regulation goes into affect (January 1, 2001) to continue in that capacity under an interim operator certification. Such certificates are not dependent on the successful completion of an exam. Pursuant to the EPA guidelines, the water supplier must submit the application for interim certification. The application must contain the information specified in paragraphs (1) through (3). The information required by paragraph (1) is basic information that is required by the Department in order to create a unique file for the operator. The information required by paragraph (2) is necessary to determine the appropriate fees as well as to determine whether or not the operator is eligible to function as a chief or shift operator. Paragraph (3) specifies that the appropriate certification fee must also accompany the application.

Subsection (b) specifies that all interim operator certificates are effective as of January 1, 2001 (the assumed effective date of the regulation) and will expire on January 1, 2004. The certificate can be renewed only once for an additional 3 years. The intent of limiting the interim certificate to a total of 6 years is that within 6 years the Department believes all distribution operators should have completed the full certification process, including the successful completion of the operator exam. This requirement is consistent with the federal guidelines. The interim certificate can only be renewed if the distribution system has not received any notice of violation, citation, or order from the Department or EPA since January 1, 2001, unless the system can demonstrate that the violation was not the result of actions taken or not taken by the distribution operator. This requirement is the basis for determining the operator’s ability to operate the system in a manner that does not jeopardize public health. If there has been a failure of the distribution system and it was the result of operator actions or inactions, that operator is not eligible for renewal of the interim certificate. They are not eligible because they have not demonstrated their

ability to operate the system in a manner that does not jeopardize public health. This requirement is consistent with the federal guidelines.

To renew an interim certificate, subsection (c) requires the supplier to submit a renewal application and specifies the time interval during which the application is to be submitted. The time interval is consistent with the interval provided for all other renewal applications and is specified to ease the processing burden on the Department as well as to provide adequate time for due process should certificate revocation become necessary. Paragraph (1) specifies information that must be submitted with the renewal application in order for the Department to match the application and payment with the appropriate operator. Paragraph (2) requires that the appropriate renewal fee be included with the renewal application. The information required by paragraph (3) is necessary to ensure compliance with the continuing education requirements.

Section 63815. CNAWWA Distribution Operator Certification.

This section presents the provisions for deeming Department certification to operators currently holding distribution certificates issued by the California/Nevada Section of the American Water Works Association (CNAWWA). This is the second of three provisions intended to bridge the transitional period.

Subsection (a) specifies that distribution operators who have been certified through the CNAWWA and hold a valid certificate on December 31, 2000, are deemed to have a valid distribution operator certificate through December 31, 2001. The intent of this subsection is to recognize CNAWWA operator certificates as valid for operation in California and to allow CNAWWA certified operators to enter into the Department's certification program with only an application for renewal. These operators are experienced and have successfully completed an exam administered by the CNAWWA that is as rigorous as exams to be administered under the Department's program. In order to be eligible, the operator must be holding a valid AWWA operator certificate on December 31, 2000. Such certificates will be deemed to be valid at the grade specified in Table 63815-A.

In order to renew a certificate issued by the CNAWWA, subsection (b) specifies that operators must submit their renewal applications by September 1, 2001. The time interval is consistent with the interval provided for all other renewal applications and is specified to ease the processing burden on the Department as well as to provide adequate time for due process should certificate revocation become necessary.

Subsection (c) specifies the items that must be included with the renewal application. The information required by paragraph (1) is information that the Department will need to start an administrative file on the operator and to verify the operator's CNAWWA certification status. Paragraph (2) specifies that the appropriate renewal fee must be included with the renewal application.

Subsection (d) specifies that the initial renewal for CNAWWA certified operators would be for a two-year period. The reason for making the renewal period only two years for

this large category of operators is that the third year after the regulations are adopted is one with a relatively light administrative workload in terms of processing certificate renewals, while the fourth year is heavy. The initial two-year renewal period will bring this group back for the next renewal at a convenient time for the Department; it will also more evenly distribute the fee income over the following years. After the initial renewal, this category of operators will be renewing for the standard three-year periods.

Section 63820. Temporary Distribution Operator Certification

This section presents the third provision intended to address the transition period. This provision will allow qualified operators to perform the duties of a certified operator during the time that the Department is developing and administering exams.

Subsection (a) presents the criteria for temporary distribution operator certification. The intent is to help ease the burden on the industry during the initial transition period when the availability of certified operators is likely to be limited. This paragraph grants temporary certification to applicants who have submitted completed applications and received notice from the Department that they are qualified to take the exam. Since exam dates have not yet been determined and the processing of exam results takes time, this provision allows qualified applicants to work as certified distribution operators until January 1, 2004. All temporary certificates expire on January 1, 2004. It is expected that by 2002, the Department's application and examination processes will have been fully developed and implemented and that by the end of 2003 the temporary certification provision will no longer be necessary.

Section 63825. Restricted Operator Certification

This section presents the requirements for obtaining a restricted operator certificate. The intent of the section is to allow operators of certain systems to obtain T1, T2, D1, or D2 restricted operator certificates without taking a written exam. This provision is intended primarily as a last resort for systems that find it difficult to employ appropriately certified operators. Some operators of very small water systems are neighborhood volunteers or small business owners who have no interest in obtaining a professional operator certification. This provision makes it easier for the Department to address these situations and to help bring them into compliance.

Paragraphs (1) through (4) of subsection (a) specify the requirements that must be met in order to be eligible for a T1, T2, D1, or D2 restricted operator certificate. The intent of paragraph (1) is to limit this provision to suppliers that cannot afford to employ a certified operator. This section is not intended to apply to suppliers that can afford to employ a certified operator. To determine the financial capabilities of a supplier, the Department has elected to use the criteria specified in the definition of "disadvantaged community," pursuant to section 63000.25.

The intent of paragraph (2) is to further limit the restricted certification to suppliers that have had enforcement actions taken against them by the Department for non-compliance with the regulatory or statutory provisions that require the use of certified operators. The intent is to limit the use of restricted certifications to suppliers that have demonstrated

they cannot comply with the requirements otherwise. The intent is that the Department will use restricted certification as a tool, in coordination with a compliance order, to help these problematic systems comply.

Paragraph (3) requires the supplier to submit the application and the appropriate fees. The intent is to clarify that the supplier is applying for the restricted operator certificate, since most of the requirements for eligibility are supplier dependent, as opposed to operator dependent.

Paragraph (4) requires the operator to pass a performance test that measures the operator's knowledge and ability to operate the specific water treatment facility and/or distribution system. The performance test is a hands-on test conducted in the field by Department field staff. The intent is to ensure that the operator is capable of operating the system in a safe manner that will not jeopardize public health or safety. This requirement is consistent with the federal guidelines.

Subsection (b) specifies that the certificate is valid for a maximum of three years and that it can be renewed if the supplier continues to serve a disadvantaged community, the appropriate renewal fee is paid, and the operator has obtained the required continuing education.

Subsection (c) clarifies that the restricted certificate is system specific and cannot be transferred to other operators or other water suppliers.

Section 63830. Certification Application Content and Submittal.

The purpose of this section is to specify the information that is to be submitted with applications for certification, and the deadlines for such submittals.

Subsection (a) specifies the information that is to be submitted with a complete application. In order for the Department to evaluate whether or not the applicant is eligible to obtain certification, the Department must have all of the items listed in paragraphs (1) through (6). The information in paragraph (1) is the basic identifying information that is used to start a unique file for the applicant. Paragraph (2) specifies that the appropriate fee must be submitted with the application. The Department will not process an application until the appropriate fee is received. The information specified in paragraphs (3) through (6) is required to verify that the applicant meets the education and experience requirements for certification.

Section 63835. Certification and Renewal Application Processing.

This section provides the periods within which the applicants will be notified of the status of their application and the Department's decisions regarding application completeness and compliance with requirements. Because certification is often required to keep or obtain employment as an operator, applicants are frequently anxious about the status of their application. The processing and notification periods specified in this section provide assurance that they will be kept informed in a timely manner. All processing

periods are necessary for the specific operations as determined by a review of the current operator certification program.

Subsection (a) specifies the period in which applicants will be notified of the Department's decision regarding the evaluation of the minimum qualifications for certification or renewal. When the Department determines that the application does not support certification or renewal the reason for this decision will be provided to the applicant.

Subsection (b) specifies that if an application is determined by the Department to not meet the requirements for certification, the applicant may resubmit an amended application within 12 months of the original submittal date without payment of an additional application fee. The intent is to offer a "grace period" for submitting a complete application and to not overburden operators with repeat application fees for omissions they may have made. If the application is resubmitted more than 12 months after the original submittal date, a new application fee will be required.

Subsection (c) provides the median, minimum, and maximum application processing times for the current operator certification program. The program for water treatment and distribution operator certification designed pursuant to this chapter will involve additional factors, such as continuing education requirements, and the processing times may be different from those provided.

ARTICLE 5. Certification Renewals, Delinquent Renewals and Fees

The purpose of this article is to specify renewal application requirements, certificate reinstatement procedures, and fee schedules.

Section 63840. Certification Renewals.

The purpose of this section is to clearly state the requirements for renewing operator certifications.

Subsection (a) specifies that certified operators must notify the Department of any address or name changes within 60 days. It is necessary for the Department to receive this information so that the Department's files can be kept current. A correct name and address is necessary so that the Department can provide certified operators with due process with regard to renewals and revocations as the result of failure to renew.

Subsection (b) specifies during what time period the renewal application must be submitted. The Department specifies that renewals be submitted no more than 180 days prior to expiration because renewals that are submitted more than 6 months prior to the expiration date are burdensome for the Department to handle administratively. The Department specifies that renewals be submitted no less than 120 days prior to expiration because this gives the Department the time necessary to complete the due process associated with revocation as a result of failure to pay renewal fees.

Paragraphs (1) through (3) specify what information must be included with certification renewal applications. The information required by paragraph (1) is necessary to ensure that the Department matches the renewal application with the correct certification. Paragraph (2) specifies that the renewal fee must be paid. The information required by paragraph (3) is necessary in order for the Department to verify that the applicant has met the minimum continuing education requirements.

Subsection (c) specifies how much continuing education is required for each grade of operator and what information operators must maintain to demonstrate that they have completed the required courses. These requirements only apply to certificates that expire after December 31, 2003. The purpose for delaying the continuing education requirements is that the requirements are intended to apply over a 3-year period of time, and it is intended that operators can spread the courses out over that period. If the requirements applied to certificates that expired on or prior to December 31, 2003, operators might find that they do not have sufficient time to complete the required courses. The Department and the TAC agreed that it is appropriate to require continuing education credits for the renewal of certificates that expire after December 31, 2003 (refer to Statement #18 of Appendix A). The subsection also specifies that no more than 25% of the continuing education training may be operator safety courses. Although safety is very important in the operation of drinking water facilities and distribution systems, the intent of the continuing education requirement is to ensure that operators are staying current on advances in the drinking water industry. For this reason, the Department and the TAC agreed that a 25% limit on operator safety training was appropriate (refer to Statement #19 of Appendix A).

Table 63840-A presents the contact hours of continuing education that are required for each grade of operator. The hours increase as the level of operator increases because the higher-grade operators generally have greater responsibilities and serve larger populations. The Department and the TAC agree that the quantity of continuing education specified in this table is appropriate (refer to Statement #20 of Appendix A).

Paragraph (1) allows operators who hold both treatment and distribution certification to apply continuing education credits obtained during a renewal period to both certificates. The intent is to not be overly burdensome on operators who hold dual certification.

Paragraph (2) allows operators to apply specialized training that was obtained to satisfy the requirements of section 63775 or 63780 toward the continuing education requirements of this section if the training was obtained during the renewal period. The intent is to allow operators who are applying for a higher grade of certificate or applying for a second certificate to utilize any specialized training they may have obtained as continuing education credit.

Subsection (d) specifies that, with the exception of the initial CNAWWA renewals, certificate renewals are valid for a period of three years. This renewal period is

consistent with federal guidelines and is considered appropriate by both the Department and the TAC (refer to Statement #22 of Appendix A).

Section 63845. Reinstatement.

The purpose of this section is to specify under what conditions an operator can have a revoked certificate reinstated.

The purpose of subsection (a) is to allow operators that have had a certificate revoked only for failure to submit the appropriate renewal payment to have their certificate reinstated if they submit a complete application and pay the appropriate renewal fee and penalties within one year of expiration. The intent is to allow operators a “grace period” of up to one year to pay their renewal and late fees. Since failure to pay fees does not pose a risk to public health, the Department and the TAC agree that such a grace period is appropriate (refer to Statement #23 of Appendix A).

The purpose of subsection (b) is to allow operators that have had a certificate revoked for failure to complete the required continuing education contact hours to have their certificate reinstated within six months if all the requirements are met and fees are paid. The intent is to allow operators who have failed to obtain the required continuing education credits to obtain the credits within a relatively short “grace period.” The Department and the TAC agree that the completion of continuing education credits is a key element of the certification program and that failure to complete such credits could potentially present a risk to public health. However, the Department and the TAC also recognize that it is likely that some operators will inadvertently fail to complete the required credits and not realize their error until they receive notice that their certificate has been revoked. The Department and the TAC agree that the six month grace period is appropriate since not allowing these operators to have their certificates reinstated is likely to pose a greater risk to public health because it may reduce an already limited pool of qualified operators (refer to Statement #24 of Appendix A). This subsection also specifies that continuing education obtained for reinstatement of an expired certificate cannot be used to satisfy the continuing education requirements of the next renewal period. The intent of this limitation is to not provide an incentive for operators to delay obtaining their education credits until after their certificate expires. Such a tactic would essentially allow operators to meet the requirements by obtaining only half the intended credits (by applying the same credits to two renewals).

Subsection (c) does not allow certificates that have been revoked for more than one year to be reinstated. The intent of this subsection is to deny reinstatement to operators who are grossly negligent in submitting their renewals. Such operators may reapply for certification through the complete application and examination process. The Department and the TAC agree that the grace periods specified in (a) and (b) are adequate and that operators who fail to comply with those requirements should not be eligible for certificate reinstatement (refer to Statement #25 of Appendix A).

Subsection (d) specifies that certificates that have been renewed pursuant to this section will have the same expiration date as the certificate would have had if it were renewed on

time. The intent is to not provide operators with an incentive to renew late in order to “stretch-out” their renewal periods and continuing education requirements. This ensures that there is no incentive for failing to renew in a timely manner.

Section 63850. Fees.

This section specifies the fees to be paid by operators and the acceptable methods of payment. The TAC assisted the Department in the development of an appropriate fee structure and the TAC generally agrees with the allocation of fees as specified in this section (refer to Statement #26 of Appendix A).

Subsection (a) specifies that fees are to be paid by a separate check or money order for each operator, and that the operator’s name and certificate number must be written on the check. The Department requires this because when single checks are submitted for multiple operators, it becomes administratively difficult to process the checks and assure that the payments are credited appropriately. Additionally, in the past water suppliers have attempted to pay multiple Department fees with one check, and such payments are not appropriate since the monies may need to be deposited into different funds. Since applications for interim certification may include numerous operators, subsection (e) makes an exception for such applications, allowing one check or money order to cover all the operators.

Subsection (b) provides that all fees submitted to the Department as required under this section are nonrefundable. The reason is that the Department incurs the same cost for processing an application, whether or not the applicant is successful or later decides to withdraw it. Making fees non-refundable prevents these costs from being shifted to applicants who do not ask for a refund.

Subsection (c) specifies the basic certification fees. The following table compares the previous fees to the new fees for treatment operators:

<i>Type of Fee</i>	<i>Grade 1</i>		<i>Grade 2</i>		<i>Grade 3</i>		<i>Grade 4</i>		<i>Grade 5</i>	
	Previous	New	Previous	New	Previous	New	Previous	New	Previous	New
Application Examination	28	50	38	65	48	100	58	130	58	155
Reexam	28	30	38	45	48	70	58	95	58	120
Certification	-	70	-	80	-	120	-	140	-	140
Renewal	23	70	33	80	43	120	53	140	53	140

The previous fees were established in 1987. The new fees reflect the total cost to administer the operator certification program. Additional details beyond those presented here are available in Appendix B. The new fees for certification are approximately four times higher. Although the new renewal fees appear to be approximately three times the previous, the new renewal period is three years, rather than the previous two years; therefore, the increase is actually only twice the previous fees.

The new fees reflect the inflation rate since 1987, the more extensive operator certification program that has been mandated by state and federal law to ensure that

drinking water treatment and distribution facilities are operated with the expertise necessary to provide public health protection, and the requirement that the fees support the entire operator certification program. A separate fee is proposed for certification; under the previous regulation, operators received their certificates after paying only the application fee (reabeled the "examination" fee in the new regulations). However, the certification period extended only one year at which time they had to renew the certificate by paying a renewal fee. Therefore, to get certified and be certified for a period of three years (initial one year certification period plus two-year renewal period), the operator paid two fees under the previous regulations. Under the new regulations, since the initial certificate fee provides for certification for a period of three years, it's essentially comparable to the previous process in that one additional fee is paid during that first three years to maintain certification. As shown below, in both cases, two fees are paid for a certification period of three years.

Previous: application fee (incl. Exam + 1 yr certificate)
+ renewal fee (2 yr renewal)

New: examination fee (incl. Exam)
+ certificate fee (3 yr certificate)

The primary reason for this change in the basic structure of the fees is to enable operators to enhance their resumes and improve their chances of being hired by being able to take an exam and successfully pass it even if they've not had the opportunity to accrue the experience. A utility is more likely to hire an operator if he/she has demonstrated the ability to pass the next level of operator exam. Under the previous regulations, an operator had to accrue the experience first to qualify to for an exam.

The new operator certification fees were developed with input from the TAC, as follows: From the previous operator certification program statistics for the 1997-99 fiscal years, the Department determined how many people applied to take treatment operator certification exams for the five existing grades, and how many applied to renew their certificates. The Department then estimated the number of people who would apply for the various grades of certification as distribution operators, and designed the fees so that the sum of the fees for all applicants would be \$1.2 million, which is the annual budget for the program. The intent is that the fees reflect the actual cost of providing the services specified for each fee category to the extent that that is possible. However, in order to address the need for regular funding of program activities, as well as operator issues related to levels for the different fees, the Department had to make adjustments such that the fees do not necessarily reflect the actual cost of providing the service associated with the fee. Some services are not covered by the associated fees, but are subsidized by other fees.

Generally, the fees increase with higher grades of certification. This reflects the fact that the per-operator costs of reviewing applications, developing and administering exams, and dealing with policy issues are higher for the higher grades due to the smaller number of operators at these grades and the greater complexity of the tasks. It also reflects the

TAC's desire to not burden the lower grades with high certification costs (refer to Statement #27 of Appendix A).

The new examination fees are less than the Department's actual costs associated with these services (processing and reviewing applications and developing and administering exams). The difference is compensated for by the certification and renewal fees, which are more than the Department's actual costs associated with administratively issuing and renewing certificates. The intent of manipulating the fees in this manner is to reduce the up-front costs to operators entering the program. Additionally, this scheme derives approximately 50% of the annual revenues from renewal fees; a revenue stream that will be much more stable and predictable than examination fees, which may fluctuate from year to year. The TAC agreed with this approach (refer to Statements #26 and #27 of Appendix A).

Subsection (d) specifies the fees for operators who hold both a distribution and a treatment certificate. Basically, they provide a discount to reduce the financial burden on operators who are required to hold "dual certification" by reducing their certification and renewal fees for each of the certificates. This was requested by the TAC, which asked that operators with dual certification pay less to prevent them from being excessively burdened by the new certification regulations. The TAC also pointed out that dual-certified operators often work for smaller water systems, tend to be paid less, and are less likely to have their certification expenses paid by their employer. The Department has incorporated the TAC's recommendation that a 25% discount be given to operators that hold two certificates, and that discount is reflected in Table 63769-B of the new regulations (refer to Statement #28 of Appendix A).

Subsection (e) specifies the fees for interim operators. An interim operator is a currently employed distribution operator who will be required to obtain certification under the new regulations in order to continue to function at the same level of responsibility. The water supplier for whom such an operator works will be required to submit an application for the appropriate certification grade during the first twelve months after the regulations take effect. Interim operators will be required to pass a certification exam within three years after the regulations take effect, unless they meet the qualifications to renew the interim certificate, in which case they may renew it and must pass the certification exam within six years after the regulations take effect (no later than January 1, 2007). To renew an interim certificate, the distribution operator will be required to accrue continuing education hours as for a regular renewal to insure that a certain level of expertise is maintained during this period before the operator has successfully passed an examination for certification. Since initially these operators are not required to take an exam to obtain the interim operator certificate, there is no examination fee associated with interim certification.

Subsection (f) specifies the fees for distribution operators who are currently certified by CNAWWA. Under the new statutory requirements, they must have state certification immediately. In order to accomplish this, when the new regulations become effective, they are automatically shifted to state certification pursuant to the new regulations as of

January 1, 2001. They are then required to submit renewal applications to the Department during the first nine months of the year so that the Department can develop individual files on each and issue an official state certification that will be good for the next two calendar years. Since they will have already been "deemed" to be certified under the state, the formal issuance of the certificate is actually equivalent to a renewal and is labeled such by the proposed regulations, but unlike "basic" (regular) renewals, the renewal period will only be two years. The fee is comparable to basic renewal fees; it was developed by taking two thirds of the basic renewal fee for each grade, then adding a certificate fee of \$25 to obtain an official copy of the state certificate (other operators renewing certificates would already have state certificates, paid for under their "certification" fee). The reason for making the renewal period only two years for this large category of operators is that the third year after the regulations are adopted is one with a relatively light administrative workload in terms of processing certificate renewals, while the fourth year is heavy. The initial two-year renewal period will bring this group back for the next renewal at a convenient time for the Department; it will also more evenly distribute the fee income over the following years. After the initial renewal, this category of operators will be renewing for three-year periods under the basic fee schedule in Table 63850-A and, if applicable, paying the discounted fees in Table 63850-B.

Subsection (g) specifies penalties to be paid by operators who are late in paying their certification fees. The intent of this is to recover the Department's cost for following up on late payments. The penalties also provide operators with a financial incentive for timely payment. The \$50 penalty fee is intended to recover the costs associated with repeat billings and notification by certified mail of pending revocation proceedings. The \$100 penalty fee is intended to cover the above costs as well as the administrative costs of processing the revocation.

Subsection (h) specifies a \$25 fee to replace a lost or stolen certificate. The intent is to recover the Department's cost for processing such a request.

The following summarizes proposed amendments for Title 22, Division 4, Chapter 15.

AMENDED - Title 22, Division 4, Environmental Health, Chapter 15, Domestic Water Quality and Monitoring

In addition to the adoption of Chapter 13, Operator Certification, the Department is amending Chapter 15, Domestic Water Quality and Monitoring, by adopting sections 64413.1, 64413.3, 64413.5 and 64413.7. Chapter 13 generally regulates the operators themselves, whereas Chapter 15 regulates the water suppliers. Sections 64413.1 through 64413.7 regulate the water suppliers and are therefore more appropriately placed in Chapter 15.

The purpose of sections 64413.1 and 64413.3 is to establish specific criteria for the classification of water treatment facilities and distribution systems, pursuant to the federal guidelines outlined in the FR. The criteria take into account system complexity and potential for adverse health effects.

The intent is to ensure that, by classifying treatment and distribution systems appropriately, certified operators with the appropriate knowledge, education, and experience are responsible for system operation.

The classification point values presented in this article were derived with the assistance of the TAC. The classification approach was inspired by a model classification regulation prepared by the Association of Boards of Certification (ABC). The classification criteria, based on indicators of potential health risk, were developed in compliance with the federal guidelines and address system complexity, size, and source water. For each criterion, a range of point values was assigned based on relative potential impact to public health. The point values were tested on numerous systems throughout the state and determined by the Department and the TAC to be appropriate (refer to Statement #2 of Appendix A).

Section 64413.1. Classification of Water Treatment Facilities.

This section provides the specific criteria for classifying water treatment facilities. The Department and the TAC agree that the important issues to address for the purposes of classifying treatment facilities are source water quality and facility complexity (refer to Statement #3 of Appendix A).

It was agreed by the TAC and the Department that the potential health risks of the source water would be addressed by evaluating the source of the water (protected groundwater vs. surface water or ground water under the direct influence of surface water), the microbiological quality of the water, the maximum turbidity of the water, and the concentrations of contaminants for which there are primary maximum contaminant levels (MCLs). It was also agreed that the complexity of the facility would be addressed by evaluating the filtration processes used, other treatment processes used, disinfection processes used, and the permitted treatment facility capacity.

Subsection (a) specifies what class a treatment facility is, based on the total points calculated in subsection (b). Table 64413.1-A presents treatment facility class designations based on the number of points calculated. The simplest of facilities, having fewer than 20 points, are classified as T1. The most complex treatment facilities, having 80 or more points are classified as T5. The other classifications, based on points, are clearly presented in the table.

Subsection (b) presents the process by which points are calculated for each treatment facility. There are 13 elements, presented in paragraphs (1) through (13), each with corresponding point values. The sum of the point values assigned for each element is used to determine the facility classification, pursuant to Table 64413.1-A. Subsection (b) also specifies that if a treatment facility treats more than one source, for the elements presented in paragraphs (2) through (5), the source with the highest average for each contaminant is used to determine the point value.

Paragraph (1) assigns point values for the type of source water used by the treatment facility. Source water is an important factor in classifying treatment facilities because surface water and groundwater under the direct influence of surface water (GWUDI) are inherently more vulnerable to microbial contamination and generally more challenging to treat than groundwater or pre-treated drinking water. The potential for microbial disease outbreaks is greater for systems using surface water or GWUDI as a source than for systems using groundwater or pre-treated drinking water as a source. Table 64413.1-B presents the points to be assigned to treatment facilities based on the source water. Purchased treated water meeting drinking water standards and/or groundwater are assigned 2 points. Treatment facilities using surface water or GWUDI, either exclusively or in combination with other sources, are assigned 5 points.

Paragraph (2) assigns point values for the influent microbiological quality based on the median of all total coliform analyses completed during the previous 24 months. Coliform data is an important factor in classifying treatment facilities because it is generally a good indicator of overall source water quality. If coliform densities are high, the source water is of lower quality and optimized treatment is critical. A failure in treatment poses a greater risk to the public if the quality of the source water is poor. Table 64413.1-C presents the points to be assigned to treatment facilities based on the median influent coliform density. If multiple sources are used, the source with the highest median coliform density pursuant to (b) is used to determine the points assigned.

Paragraph (3) assigns point values, for facilities treating surface water or GWUDI, for maximum influent water turbidity based on the previous 24 months of data. Source water turbidity is an important factor in classifying treatment facilities because it is generally a good indicator of overall source water quality and treatability. Water with high turbidity spikes may be difficult to treat and presents a greater potential to harm public health should a treatment failure occur. The paragraph specifies that on-line turbidity data is to be used if it is available, and that the maximum turbidity value sustained for at least one hour is used to determine the points assigned. If on-line data is unavailable, the single highest turbidity grab sample is used. If the facility has not been in operation for 24

months, the available data is used. If one or more months of data are missing during times that the facility was in operation, the highest point value of 5 is assigned. If a facility has implemented measures, and these measures are specified in the permit, to ensure that water exceeding a predetermined turbidity does not enter the treatment facility, the points corresponding to that turbidity value are assigned. Table 64413.1-D presents the points to be assigned based on maximum turbidity levels. If multiple sources are used, the source with the highest maximum turbidity pursuant to (b) is used to determine the points assigned.

Paragraph (4) assigns point values for influent water nitrate and nitrite levels based on the average of the three most recent sample results. Nitrate and nitrite are important factors in classifying treatment facilities because if the source water contains nitrate or nitrite at a level that exceeds the MCL, a treatment failure would pose an acute risk to public health. Table 64413.1-E presents the points to be assigned based on the average of the three most recent nitrate and nitrite sample results. If multiple sources are used, the source with the highest average nitrate or nitrite results pursuant to (b) is used to determine the points assigned.

Paragraph (5) assigns point values for influent water contaminants with primary MCLs, other than nitrate and nitrite, based on the average of the three most recent sample results for each contaminant. Source water contaminants that have primary MCLs are an important factor in classifying treatment facilities because if the source water contains contaminants that exceed the MCL, a treatment failure would pose an increased risk to public health. Contaminants that exceed the MCL by more than five times pose an increased risk to public health and are therefore assigned a higher point value. If monitoring for a contaminant has been waived, the points shall be zero. Table 64413.1-F presents the points to be assigned for each contaminant that exceeds the MCL. If multiple sources are used, the source with the highest average contaminant concentration pursuant to (b) is used to determine the points assigned for each contaminant.

Paragraph (6) assigns point values for surface water filtration treatment processes that are utilized by the facility for compliance with section 64652. The points assigned are the sum of the points for each treatment process used at the facility. Treatment processes are an important factor in classifying treatment facilities because they create complexity and generally require more sophisticated operators. This paragraph limits the points assigned to processes that are being utilized for organism removal credit pursuant to the section 64652 of the Surface Water Treatment Rule. Such processes are considered to be the most critical for the protection of public health from microbial diseases, and are therefore assigned the highest point values. Table 64413.1-G presents the points to be assigned for each process. Since backwash water recycling presents a potential public health risk as well as increased system complexity, additional points are to be assigned if backwash water is recycled.

Paragraph (7) assigns 10 points for treatment processes not included in paragraph (6) that are used to reduce the concentration of one or more contaminants for which a primary MCL exists. Additional treatment processes that reduce contaminants for which a

primary MCL exists are an important factor in classifying treatment facilities because they add to the complexity of the facility and could adversely affect public health should a treatment failure occur. Points are assigned whether the contaminants exceed the MCL or not. If blending is being utilized, it only counts as treatment if one of the blended sources exceeds a primary MCL, since blending is not a complex treatment unless specific blend ratios must be maintained to ensure compliance with a primary MCL.

Paragraph (8) assigns 3 points for treatment processes not included in paragraphs (6) or (7) that are used to reduce the concentration of one or more contaminants for which a secondary MCL exists. Additional treatment processes that reduce contaminants for which a secondary MCL exists are an important factor in classifying treatment facilities because they add to the complexity of the facility and may require a more sophisticated operator. Points are assigned whether the contaminants exceed the secondary MCL or not. If blending is being utilized, it only counts as treatment if one of the blended sources exceeds the secondary MCL, since blending is not a complex treatment unless specific blend ratios must be maintained to ensure concentrations remain below a secondary MCL.

Paragraph (9) assigns 3 points for treatment processes not included in paragraphs (6), (7), or (8) that are used for corrosion control or fluoridation with acid. These additional treatment processes are an important factor in classifying treatment facilities because they add to the complexity of the facility and may require a more sophisticated operator.

Paragraph (10) assigns point values for disinfection treatment utilized by the facility for compliance with section 64654(a) of the Surface Water Treatment Rule. The points assigned are the sum of the points for each treatment process used at the facility. Disinfection processes are an important factor in classifying treatment facilities because they create complexity and generally require more sophisticated operators. This paragraph limits the points assigned to processes that have been given organism inactivation credit pursuant to the Surface Water Treatment Rule. Such processes are considered to be the most critical for the protection of public health from microbial diseases, and are therefore assigned the highest point values. Table 64413.1-H presents the points to be assigned for each process.

Paragraph (11) assigns point values for disinfection/oxidation treatment processes that were not included in paragraphs (6), (7), (8), or (10). These additional treatment processes are an important factor in classifying treatment facilities because they add to the complexity of the facility and may require a more sophisticated operator. Table 64413.1-I presents the points to be assigned for each process.

Paragraph (12) assigns 3 points for any treatment process that was not included in paragraphs (6) through (11). Since any treatment process used by a facility presents additional complications, such processes should be taken into consideration when classifying a facility.

Paragraph (13) assigns a point value for facility flow, based on the maximum permitted treatment facility capacity. Plant flow is an important factor in classifying treatment facilities because facilities with higher flow rates are generally more complex and pose a risk to a larger population if a treatment failure were to occur. For each million gallons per day, or fraction thereof, 2 points are assigned, with a maximum of 50 points. For blending treatment facilities, the points are based on the flow from the contaminated source and dilution flow required to meet the MCL(s).

Section 64413.3. Classification of Distribution Systems.

This section provides the specific criteria for classifying water distribution systems. The Department and the TAC agree that the most important factor for the purpose of classifying distribution systems is population served by the system (refer to Statement #4 of Appendix A). The Department and the TAC agree that other potentially complicating factors should also be evaluated and that if numerous complicating factors are present, the system classification should be upgraded by one level. The Department and the TAC developed and agreed upon the additional complicating factors as described in this section (refer to Statement #5 of Appendix A).

Subsection (a) classifies distribution systems for each community and nontransient noncommunity water system based on population served. Population served is the single most important factor in classifying distribution systems because it is a direct indicator of the population at risk should a failure occur, and system complexity generally increases as the population served increases. For wholesalers, the population served includes the customers served by its retailers. The classification specified by this subsection may be upgraded by one level pursuant to subsection (b). Table 64413.3-A presents the distribution system classifications based on population served.

Subsection (b) specifies that the distribution system classification is upgraded by one level if the sum of all points determined in paragraphs (1) through (6) exceeds 20 and the population served is 5 million or less. The factors presented in paragraphs (1) through (6) add complexity to the distribution system, and if sufficient complexity is added, the sophistication of the system operators must be increased.

Paragraph (1) specifies the point value to be assigned based on the number of pressure zones in the distribution system. The number of pressure zones in the system is an important factor in classifying distribution systems because the system complexity is increased as the number of pressure zones increases. As the system's complexity increases, the operator's level of sophistication must increase.

Paragraph (2) specifies the number of points to be assigned based on the number of different types of disinfectants present or applied in the distribution system. This is an important factor in classifying distribution systems because the addition of disinfectants adds to the complexity of the system, and the handling of different types of disinfectants in the system not only increases the system complexity but may also pose a risk to public health if operators are not appropriately trained.

Paragraph (3) specifies the number of points to be assigned based on the largest single pump in the system for which the operator is responsible. This is an important factor in classifying distribution systems because larger pumps are more complex and may damage the distribution system if operated inappropriately. Operation of large pumps may require more sophisticated operators.

Paragraph (4) specifies the number of points to be assigned based on the number of distribution reservoirs in the system. Increasing numbers of reservoirs increases the system complexity and may require more sophisticated operators.

Paragraph (5) specifies the number of points to be assigned if a system operates an uncovered distribution reservoir. This is an important factor in classifying distribution systems because uncovered reservoirs require special attention to ensure that the treated water remains safe to drink. Uncovered reservoirs pose an increased risk to public health if operators are not appropriately trained.

Paragraph (6) specifies the number of points to be assigned if a distribution system serves customers that are also served by a non-potable water distribution system. This is an important factor in classifying distribution systems because the presence of non-potable water distribution systems significantly increases the potential for cross-connections, which could adversely affect public health. The points do not apply to wholesalers if the only customers receiving the non-potable water are served by its retailers, since such a situation does not increase the risk for the wholesaler's distribution system.

Section 64413.5. Treatment Facility Staff Certification Requirements.

This section specifies the types and grades of operators that must be assigned to each treatment facility.

Subsection (a) requires that the water supplier designate one or more chief operators for each water treatment facility used by the water system. The chief operator must hold a treatment operator certificate of a grade at least equivalent to the class of water treatment facility operated. This requirement ensures that the individual who has overall responsibility for the day-to-day, hands-on, operation of the water treatment facility has the necessary knowledge, education, and experience to ensure that the facility is operated in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (b) requires that the water supplier designate one or more shift operators for each water treatment facility used by the water system for each operating shift. The shift operator must hold a treatment operator certificate no more than one grade lower than the class of treatment facility operated, except that in a class T5 facility a T3 operator may serve as the shift operator. This requirement ensures that for each operating shift, an appropriately trained and certified operator is responsible for ensuring that the facility is operated in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (c) requires that either the chief or shift operator must be on-site at all times that the facility is operating, unless the provisions of subsection (d) have been met. This requirement ensures that a qualified operator who is capable of initiating an appropriate response is always available should problems with the treatment process arise.

Subsection (d) allows a treatment facility to operate without the chief or shift operator on-site if the supplier's approved operations plan demonstrates an equal degree of operational oversight and reliability. Some suppliers utilize automated equipment capable of sounding alarms and paging operators should an unusual circumstance arise. Some treatment facilities are even capable of shutting themselves down if a failure occurs. The intent of this subsection is to allow such systems to operate either unmanned or with reduced operator certification if the supplier's approved operations plan demonstrates reliability features that will automatically notify an off-site operator or shut down the plant in case of system malfunction or failure. In any case, the chief or shift operator must be able to be contacted within one hour.

The intent of subsection (e) is to allow currently employed shift and chief operators to continue serving in those positions until January 1, 2003, so long as they met the certification requirements that were in place on December 31, 2000, and there are no changes to the treatment facility. If there are changes made to the treatment facility, the operators must meet the new certification requirements pursuant to section 63765. If new shift or chief operators are designated, the new operators must meet the certification requirements pursuant to section 63765. This will ensure that facilities are given adequate time to either hire appropriately certified operators or upgrade the certifications of their existing staff, while protecting against backsliding during the interim period.

Section 64413.7. Distribution System Staff Certification Requirements.

This section specifies the types and grades of operators that must be assigned to each distribution system.

Subsection (a) requires that the water supplier designate one or more chief operators for each water distribution system used by the water system. The chief operator must hold a distribution operator certificate of a grade at least equivalent to the class of distribution system operated. This requirement ensures that the individual who has overall responsibility for the day-to-day, hands-on, operation of the distribution system has the necessary knowledge, education, and experience to ensure that the facility is operated in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (b) requires that the water supplier designate one or more shift operators for each distribution system used by the water system for each operating shift. The shift operator must hold a distribution operator certificate no more than one grade lower than the class of distribution system operated, except that in a class D5 facility a D3 operator may serve as the shift operator. This requirement ensures that for each operating shift, an appropriately trained and certified operator is responsible for ensuring that the facility is operated in a safe and appropriate manner without jeopardizing public health or safety.

Subsection (c) requires that at all times that the distribution system is operating, either the chief or shift operator must be on-site or able to be contacted within an hour. This requirement ensures that a qualified operator who is capable of initiating an appropriate response is always available should problems with the distribution system arise.

APPENDIX A

July 28, 2000

Technical Advisory Committee Meeting

At the meeting of the Technical Advisory Committee (TAC) that took place on July 28, 2000, 15 members were present, including DHS and EPA representatives. The voting members were representing the following groups:

- Sacramento State University (representing providers of specialized training and continuing education)
- California Water Association
- California-Nevada Section of the American Water Works Association
- Rural Community Assistance Corporation
- Southern California Operators
- Northern California Operators and Bay Area Water Superintendents

The members reviewed the regulations and the following statements and were asked to vote either affirmatively or non-affirmatively on each statement. The results of each vote are presented below.

Statement 1 Affirm - 6 Non-affirm - 0

The Technical Advisory Committee (TAC) has reviewed the proposed Operator Certification draft language and approves of the Department's language.

Statement 2 Affirm - 6 Non-affirm - 0

The TAC has assisted the Department in the development of the classification process for both water treatment facilities and distribution systems. The TAC believes that the point values used for classifying treatment facilities and distribution systems are appropriate.

Statement 3 Affirm - 6 Non-affirm - 0

The TAC agrees that the important issues to address for the purposes of classifying treatment facilities are source water quality and facility complexity.

Statement 4 Affirm - 5 Non-affirm - 1

The TAC agrees that the most important factor for the purpose of classifying distribution systems is the population served by the system.

(Note - The single non-affirming vote did not believe the regulation was stringent enough)

Statement 5 Affirm - 6 Non-affirm - 0

The TAC agrees that additional complicating factors, as specified in section 64413.3(b), should also be considered in the classification of distribution systems.

Statement 6 Affirm - 6 Non-affirm - 0

The TAC agrees with the minimum certification requirements specified for chief and shift operators.

Statement 7 Affirm - 6 Non-affirm - 0

The TAC agrees that it is appropriate to require that shift operators in T5 facilities hold at least a T3 certificate.

Statement 8 Affirm - 6 Non-affirm - 0

The TAC agrees that it is appropriate to require that shift operators in D5 systems hold at least a D3 certificate.

Statement 9 Affirm - 6 Non-affirm - 0

The TAC believes that the eligibility criteria specified in Article 3 for taking water treatment operator examinations and distribution operator examinations are appropriate.

Statement 10 Affirm - 5 Non-affirm – 1

The TAC believes that the education and experience requirements specified for each operator grade are appropriate and necessary to ensure that water treatment facilities and distribution systems are operated in a safe and appropriate manner without jeopardizing public health or safety.

(Note – the single non-affirming vote did not believe the regulation was stringent enough)

Statement 11 Affirm - 6 Non-affirm - 0

The TAC believes that allowing admission to certification exams before the applicant obtains the experience required for certification, and then allowing up to three years after successful completion of the exam to obtain the experience will be beneficial to both the water suppliers and the operators.

Statement 12 Affirm - 4 Non-affirm – 2

The TAC agrees that allowing the substitutions specified in 63800(f) and 63805(f) is appropriate, and that the quantity of time that may be substituted for each level of education is also appropriate.

(Note – the two non-affirming votes did not believe the regulation was stringent enough)

Statement 13 Affirm - 6 Non-affirm - 0

The TAC agrees that the substitution specified in 63800(g) and 63805(g) is appropriate.

Statement 14 Affirm - 6 Non-affirm - 0

The TAC agrees that the comprehensive operator training program option specified in 63800(h) will allow more flexibility in hiring and promoting highly qualified operators.

Statement 15 Affirm - 6 Non-affirm - 0

The TAC agrees that the comprehensive operator training program specified in 63800(h) must be at least six months in duration to allow for sufficient training and experience associated with the ten elements specified in paragraphs (1) through (10).

Statement 16 Affirm - 6 Non-affirm - 0

The TAC assisted in the development of the ten elements specified in paragraphs (1) through (10) and agrees that operators at the T3 and T4 level must understand these elements.

Statement 17 Affirm - 6 Non-affirm - 0

The TAC agrees that experience gained as a certified wastewater treatment facility operator may be substituted for up to two years of experience as a treatment plant operator. The TAC also agrees that the substitution should be made on a 2 for 1 basis, i.e., two months of wastewater experience equates to one month of drinking water experience.

Statement 18 Affirm - 6 Non-affirm - 0

The TAC agrees that it is appropriate to require continuing education credits for the renewal of certificates that expire after December 31, 2003.

Statement 19 Affirm - 6 Non-affirm - 0

The TAC agrees that a 25% limit on operator safety training, as specified in 63840(c), is appropriate.

Statement 20 Affirm - 6 Non-affirm - 0

The TAC agrees with the quantity of continuing education specified in Table 63840-A.

Statement 21 Affirm - 1 Non-affirm – 5

The TAC agrees that it is reasonable to offer continuing education waivers to operators that meet the conditions specified in 63840(c)(3).

(Note – as a result of this vote, section 63840(c)(3) was removed from the proposed regulation)

Statement 22 Affirm - 6 Non-affirm - 0

The TAC believes that a three year certificate renewal period is appropriate.

Statement 23 Affirm - 6 Non-affirm - 0

The TAC agrees with allowing operators a “grace period” of up to one year to pay their renewal and late fees, as specified in subsection 63845(a).

Statement 24 Affirm - 6 Non-affirm - 0

The TAC agrees that the completion of continuing education credits is a key element of the certification program and that failure to complete such credits could potentially present a risk to public health. However, the TAC also recognizes that it is likely that some operators will inadvertently fail to complete the required credits and not realize

their error until they receive notice that their certificate has been revoked. The TAC agrees that the six month “grace period” specified in subsection 63845(b) is appropriate since not allowing these operators to have their certificates reinstated is likely to pose a greater risk to public health because it may reduce an already limited pool of qualified operators.

Statement 25 Affirm - 6 Non-affirm - 0

The TAC agrees that the “grace periods” specified in subsections 63845(a) and (b) are adequate and that operators who fail to comply with those requirements should not be eligible for certificate reinstatement.

Statement 26 Affirm - 5 Non-affirm - 1

The TAC agrees with the allocation of fees as specified in section 63850.

Statement 27 Affirm - 5 Non-affirm - 1

The TAC’s desire was to not overburden the lower grades with high certification costs and to reduce the up-front costs to operators entering the program.

Statement 28 Affirm - 6 Non-affirm - 0

The TAC recommended that a 25% discount be given to operators that hold both treatment and distribution certificates.

Attendees of the July 28, 2000 TAC Meeting

Name	Affiliation	Representing
Tina Pullano	DHS	
Alice Webber	DHS	
Janine Jones	DHS	
Gary Yamamoto	DHS	
Paul Gilbert-Snyder	DHS	
Bob Hultquist	DHS	
Kevin Ryan	USEPA Region 9	
Darcy Burke	AWWA	
Shannay Sampson	AWWA	
Karl Voigt	Alameda County WD	N. California Operators Bay Area Super.
Mark Richardson	RCAC	Rural Community Assistance Corp.
Bryan Troupe	SDCWA	S. California Operators
Eric Averett	Kern Co. WA	AWWA (proxy for B. Wulff)
Bill Gedney	S. Calif. WC	CWA
Ken Kerri	CSUS	Educators

Appendix B Supplement on Operator Fees

This supplement on fees to the Statement of Reasons is intended to provide additional details related to the development of the proposed operator fees; the primary vehicle for doing so is a series of tables; each will be explained.

- The "number of operators" in various categories had to be determined in order to proceed. *Table 1: Basic Outline of Cost Estimate Assumptions by Year, Number of Operators, Cost Category* provides an outline by year, type and grade of operator, number of operators and cost category, so that the underlying operator factors can be viewed at a glance.
 - The total number of treatment operator applicants and numbers in each grade were derived from the number of applicants, reexaminations, certificates, and renewals in the 1997-99 fiscal years, based on Department records (see attached). The numbers and percentage breakdown are provided on Tables 2, 2a, 2b, and 2c.
 - The total number of existing treatment operator applicants and numbers in each grade were derived from Program statistics as well. The number and percentage breakdown are provided on Table 2.
 - For distribution operators, the figure of 10,500 that had been estimated for the Budget Change Proposal was used as a basis for developing the number of applicants for exams in the first year and the number of interim operators (those not immediately planning to take the exam, but "grandparented" under the regulations for a period up to six years). The distribution across grades was based on the known distribution among existing treatment operators (Program statistics mentioned above).
 - The number by grade and the total number of CNAWWA-certified distribution operators were provided by CNAWWA. The numbers and percentage breakdown are provided on Table 2a.
 - The average pass rate for exams (two exams are given each year under the current program and anticipated for the new program) is approximately 50%; that rate was used as a basis for the number of reexaminations and certificates.
 - The percentage of operators used for dual certification was estimated at 50%; this was based on discussions with field staff experienced in water utility staffing issues and needs; no discounts for dual certification were factored in for treatment operator renewals for the first two years because it is assumed that it is too early in the new distribution certification program for a significant number of treatment operators to qualify for the discount.
 - The number of distribution operators expected to be grandfathered in and defer examination until a later date was estimated at 1,000, based on discussions with field staff experienced in water utility staffing issues and needs.
- Table 2: Existing and Proposed Regulations: Treatment Operators Ongoing Estimated Annual Fees for Certification and Renewal
- Table 2a: Distribution Operators Estimated First Year Fees for Examination/Certification Fees

- Table 2b: Distribution Operators Estimated Second Year Fees for Examination/Certification
- Table 2c: Distribution Operators Estimated Third-Fifth Year Fees for Examination/Certification
- Table 3: Renewal Fees for Treatment and Distribution Operators by Year
- Table 4: Summary of Costs Due to Proposed Fees

There are four basic types of operator fees related to certification; note that all fees increase with the grade level of the operator:

- ✓ Examination fee = fee to get application reviewed and if it meets the criteria, applicant will be allowed to take the examination (currently called "application fee"; increase is proposed)
- ✓ Reexamination fee = fee to retake exam if applicant failed exam (increase is proposed)
- ✓ Certification fee = fee to get certified once applicant has passed the exam and met all other requirements (new fee; broken out from current "application fee" that includes examination and one year of certification).
- ✓ Triennial renewal fee = basic renewal fee to get continuing education units reviewed and, if they meet the criteria, applicant's certificate will be renewed. (Increase is proposed. Note that triennial renewal differs from the existing requirement for biennial renewal.)

In addition, during the first year only, there will be a one-time biennial "renewal fee" for CNAWWA operators.

Table 1 specifies the type, category and estimated number of operators paying different fees during each year; these were used to develop the fiscal impact analysis. The notes explain the basis of the numbers, as does this test and notes on other tables.

Treatment operators will experience an incremental increase in their fees related to certification: The existing fees are for application (includes first exam), reexamination (required each time an exam is retaken), and renewal; the first renewal is due only 1 year after certification. These fees have been increased as explained above and a separate certification fee added which certifies the operator for a three-year period (basically equivalent to the existing regulations that provide the certificate under the initial certification, but require renewal within 1 year. Also, as described above, a table of discounted fees is provided for operators who obtain a second certification, i.e., certification for both treatment and distribution operators. **Table 2** provides a summary of the differences in these fees by comparing the existing fees with the proposed for a "typical" year, based on the data mentioned above. The discount provided under the proposed regulations was not factored in on this comparison, although it is included in a later summary of fiscal impacts for the third through fifth years. The estimated annual fees under existing regulations are \$301,000, while the estimate for the proposed regulation is \$798,400. Therefore, the estimated increase in fees for treatment operators as a result of the proposed regulation is \$497,400. Note that this will be reduced by the

discount for certificates and renewals for operators that also obtain distribution operator certification.

Distribution operator requirements and the associated fees are entirely new. The proposed fees are the same as those for treatment operators, along with the discount for dual certification. A category called "interim operator" fees is provided to address "grandparenting" of operators and phasing them in over a six-year period to allow for immediate certification of operators with a certain level of responsibility meeting the proposed regulatory criteria. These fees include only certification and renewal, and are at the same levels as those for treatment and distribution operators. **Table 2a** details the first year costs: Starting with the estimate of 10,500 operators from the Budget Change Proposal, the total number of CNAWWA operators is subtracted out, leaving 3,110. Of these, ~1/3 (1,000) are expected to be grandparented, while the rest (2,110) are expected to apply for certification and examination early on. **Section 1 of Table 2a** provides the detail for the estimated \$291,800 total fees for this group of operators. The distribution of the 2,110 new applicants across the grades is consistent with the treatment operator applicant grade distribution mentioned above and in assumption 3 on the table. The number of reexaminees reflects the 50% pass rate assumed, as does the number of certificates.

Section 2, Table 2a, provides the details of certification fees totaling \$87,300 to be paid by the "interim" operators for certification.

Section 3, Table 2a, provides the details of certification fees totaling \$1,036,900 for the 7,393 distribution operators who currently have CNAWWA grade 1 certification and are required to transfer their certification to the state in the first year after the regulation is adopted. They must pay the one-time biennial renewal fee mentioned above plus \$25 for the certificate itself. CNAWWA grade 1 is equivalent to state grade 2, CNAWWA grade 2 to state grade 3 and so on, pursuant to the proposed regulations; for this reason, there are no grade 1 state operators resulting from this transition. The CNAWWA-certified operators are not required to go through the basic application/examination procedure or pay the associated fees, since they've already done so under CNAWWA. Also, since they've already met criteria related to their expertise to obtain CNAWWA certification, they are not required to accrue continuing education units for their certificate renewal in year 3 (for years 4 through 6), but will be required to do so on subsequent renewals.

Section 4, Table 2a, shows the total fees for the new operators, the interim operators and the AWWA operators: \$822,100.

Section 5, Table 2a, shows the estimated fee savings for treatment operators who are obtaining a distribution operator certification as well. The total is \$22,000

The bottom line on **Table 2a** provides the estimated fees after discount paid by distribution operators during the first year: \$1,014,900.

Distribution Operator fees for year 2 are detailed in **Table 2b**. They differ from year 1 in that the numbers of new applicants (consistent with treatment operator applicant statistics), reexaminees (1/2 of applicants plus those that failed previous year's exam), and certificates (1/2 of those examined this year) have changed; the estimated total for fees is \$294,400. Dual certification savings are factored directly in under certification in section 1.

Distribution Operator fees for years 3 through 5 are detailed in **Table 2c**. The only differences from Table 2b are the number of new applicants, reexaminees, and certificates which are now completely consistent with statistics for treatment operators. Years 4 and 5 are estimated to be the same as year 3 and fees will accrue only from basic certification and renewal processes which will be ongoing.

Renewal fees for both treatment and distribution operators are summarized in **Table 3** for the first five years after the regulation is adopted. The fees, dual certification discount (applied to 50% of operators after year 2), number of affected operators each year and total fees for each grade are provided for each year. The existing treatment operators would be renewing the first two years, since they are currently on biennial renewal; half are assumed to renew for each year. The third year there would be no treatment operator renewals, since the proposed renewal period is triennial. However, both the interim distribution operators whose certificates took effect on January 1 of year 1 and the CNAWWA-certified operators who transitioned during year 1 with a biennial renewal will be renewing. The fourth year, the group of treatment operators that renewed the first year and the distribution operators that were certified the first year would be renewing. The fifth year, the treatment operators that renewed the second year and the distribution operators that were certified the second year would be renewing. Total estimated renewal fees for each year are \$554,100, \$554,100, \$677,000, \$467,400, and \$613,100. The reason that the last year differs from the fourth is that there is a difference in the number of distribution operators who would be certified in the first two years because initially there will be a large number of operators without certificates who are already working and will want to get certified as quickly as possible. By the third year, the number will even out (see Table 2c).

Table 4 provides a summary of the fees that will be paid by the operators during the first five years after the proposed regulations are adopted.. Although estimated annual costs vary from one year to the next primarily due to renewal cycles and the transfer of CNAWWA operators, the average annual fees for this five year period is \$1,230,940, rounding to \$1.2 million. This average for total annual fees is consistent with the estimated funding needed to run the Department's operator certification program, as identified in the Budget Change Proposal attached to this Fiscal Impact Analysis. Although the number of new applicants for operator certification is relatively stable from year to year, due to operator attrition and applicant failure to complete the certification process, the total number of treatment and distribution operators is not expected to change significantly over the next five to ten years.

TABLES